Amendments to the Specification:

Please replace the Abstract with the attached substitute Abstract.

Please replace paragraph [0046] of the specification with the following paragraph.

[0001] Figs. 2 and 3 show exemplary end and side views, respectively, of a configuration of the optical position transducer shown in Fig. 1. In a conventional imaging type optical position transducer, the light source 130 may be a light emitting diode that emits incoherent light. In a speckle imaging type optical position transducer, the light source 130 may include a laser diode that emits coherent light. In either case, in the optical position transducer shown in Figs. 2 and 3, the emitted light is collimated by collimating lens ~~132~~ 131 and the resulting illumination beam 134 may be directed at approximately a 45°+/-10° angle of incidence to the surface 110, although smaller angles of incidence are preferred, if possible and practical. The light is then reflected by surface 110. A portion of the reflected light forms the reflected beam 136 that a passes through the lens 140 and is projected as light 142 to an aperture 152 in a pinhole aperture plate to reach to a first mirror 158. The beam of light 142 is reflected by the first mirror 158 to a second mirror 159. The beam of light 142 is further reflected by the second mirror 159 onto the detector 160. It should be appreciated that only the central axes of the beam 134, the reflected beam 136 and the beam of light 142 are shown in Figs. 2 and 3. In general the beam 134 and 136 will have a beam diameter larger than the aperture 152, so that the aperture 152 is the limiting aperture of the optical system.